

**SEGMENTED SUPPORT STRUCTURE
AND METHOD AND FIXTURE
FOR MAKING THE SAME**

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ABSTRACT

A gantry segmented support structure is provided with overlapping wall plates that can include a damping material disposed therebetween. The structure forms a tube assembly, which when configured with the damping material is adapted to dampen forces resulting from performing operations on a workpiece. In particular, the damping prevents unwanted oscillatory displacement of the segmented support structure. The overlapping wall plates allow a housing created thereby to be attached to a rigid plate without inducing strain in the rigid plate that can deform the rigid plate. This construction eliminates manufacturing of bulky weldments, which thereby reduces costs. A method of assembly and a fixture are also provided.

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